Application No. 10/662,088 Amendment dated September 6, 2005 Response to Office Action mailed May 3, 2005

## **Amendments to the Specification:**

Please delete the Abstract of the Disclosure in its entirety and substitute the following replacement Abstract therefor:

## ABSTRACT OF THE DISCLOSURE

A method of preparing patterned colloidal crystals includes filling a monomer solution in the interstices between particles of planar colloidal crystals for photopolymerization inside them, and performing a selective photopolymerization process between the colloidal crystals using a mask. In one exemplary method, a first monomer solution for photopolymerization is filled inside planar colloidal crystals. A first selective photopolymerization process is performed inside the colloidal crystals using a mask. A second monomer solution for photopolymerization is filled into the firstly patterned colloidal crystals. At least one additional photopolymerization process is performed inside the firstly patterned colloidal crystals using an additional mask. Through this method, colloidal crystalline regions oriented in the same direction with different refractive indexes can be controlled in a level of  $\mu m$ . Further, repeated patterns can be inexpensively and easily prepared.